

**WHAT IS CLAIMED IS:**

1. An intraluminal catheter comprising:
- a) an elongated catheter shaft having proximal and distal ends, a port in the distal end, and an inner lumen extending at least within a distal portion of the catheter shaft to the port in the distal end; and

b) a distal extremity of the catheter shaft having a tubular portion with a expanded section having an outer diameter greater than an outer diameter of an unexpanded section of the tubular portion proximal to the expanded section.

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2. The intraluminal catheter of claim 1 wherein the expanded section of the distal tubular extremity has a length of about 0.1 to about 1 cm.

3. The intraluminal catheter of claim 1 wherein the expanded section of the distal tubular extremity has a length of about 0.2 to about 0.5

15 cm.

4. The intraluminal catheter of claim 1 wherein a portion of the distal tubular extremity distal to the expanded portion is unexpanded.

5. The intraluminal catheter of claim 1 wherein the length of the distal tubular extremity including the expanded portion and the distal

20 unexpanded portion is about 0.2 to about 1.3 cm.

6. The intraluminal catheter of claim 4 wherein the unexpanded portion of the distal tubular extremity distal to the expanded portion has smaller transverse dimensions than transverse dimensions of the

unexpanded portion of the distal tubular extremity proximal to the expanded portion thereof.

7. A dilatation catheter comprising:

5 a) an elongated catheter shaft having proximal and distal ends, a port in the distal end, a guidewire lumen extending at least within a distal portion of the catheter shaft to and in fluid communication with the port in the distal end and an inflation lumen extending through the catheter shaft to a location spaced proximal to the distal end;

10 b) a balloon on the distal portion of the catheter shaft having an interior chamber which is in fluid communication with the inflation lumen and a distal skirt;

15 c) an inner tubular member extending through the interior chamber of the balloon, having the distal balloon skirt secured to the exterior of the inner tubular member and having an expanded portion extending beyond the distal skirt of the balloon which has outer transverse dimensions greater than outer dimensions of the distal skirt of the balloon.

20 8. The dilatation catheter of claim 7 wherein the inner tubular member has a portion distal to the expanded section which tapers to outer transverse dimensions smaller than the outer transverse dimensions of the expanded section.

9. The dilatation catheter of claim 8 wherein the tapered portion distal to the expanded portion has transverse dimensions smaller than

transverse dimensions of the unexpanded portion proximal to the expanded portion.

10. The dilatation catheter of claim 7 wherein the expanded section of the distal tubular extremity has a length of about 0.1 to about 1 cm.

5 .11. The dilatation catheter of claim 7 wherein the expanded section of the distal tubular extremity has a length of about 0.2 to about 0.5 cm.

12. The dilatation catheter of claim 7 wherein a portion of the distal tubular extremity distal to the expanded portion is unexpanded.

10 13. The dilatation catheter of claim 7 wherein the length of the distal tubular extremity including the expanded portion and the distal unexpanded portion is about 0.2 to about 1.3 cm.

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